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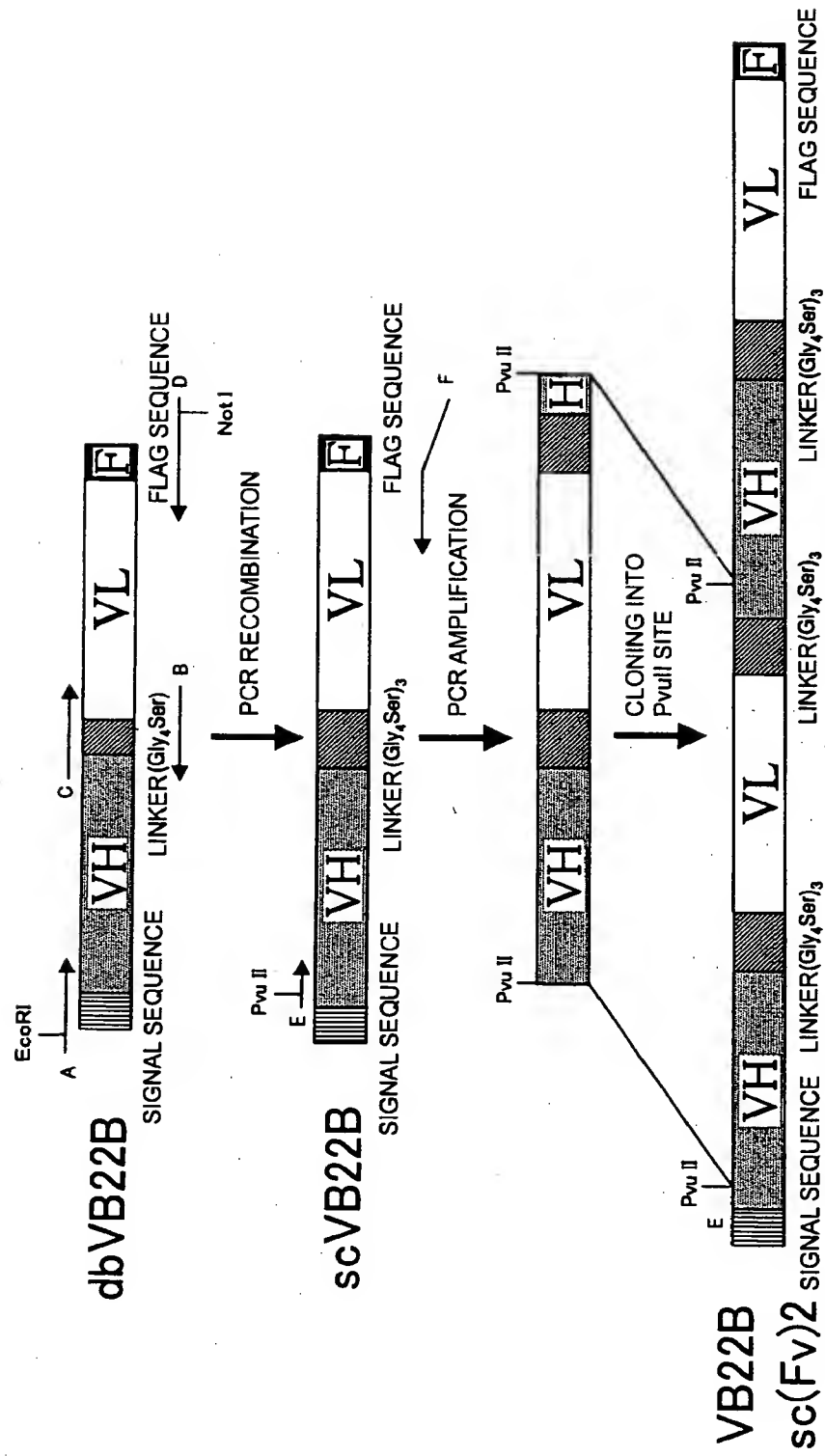


FIG. 1

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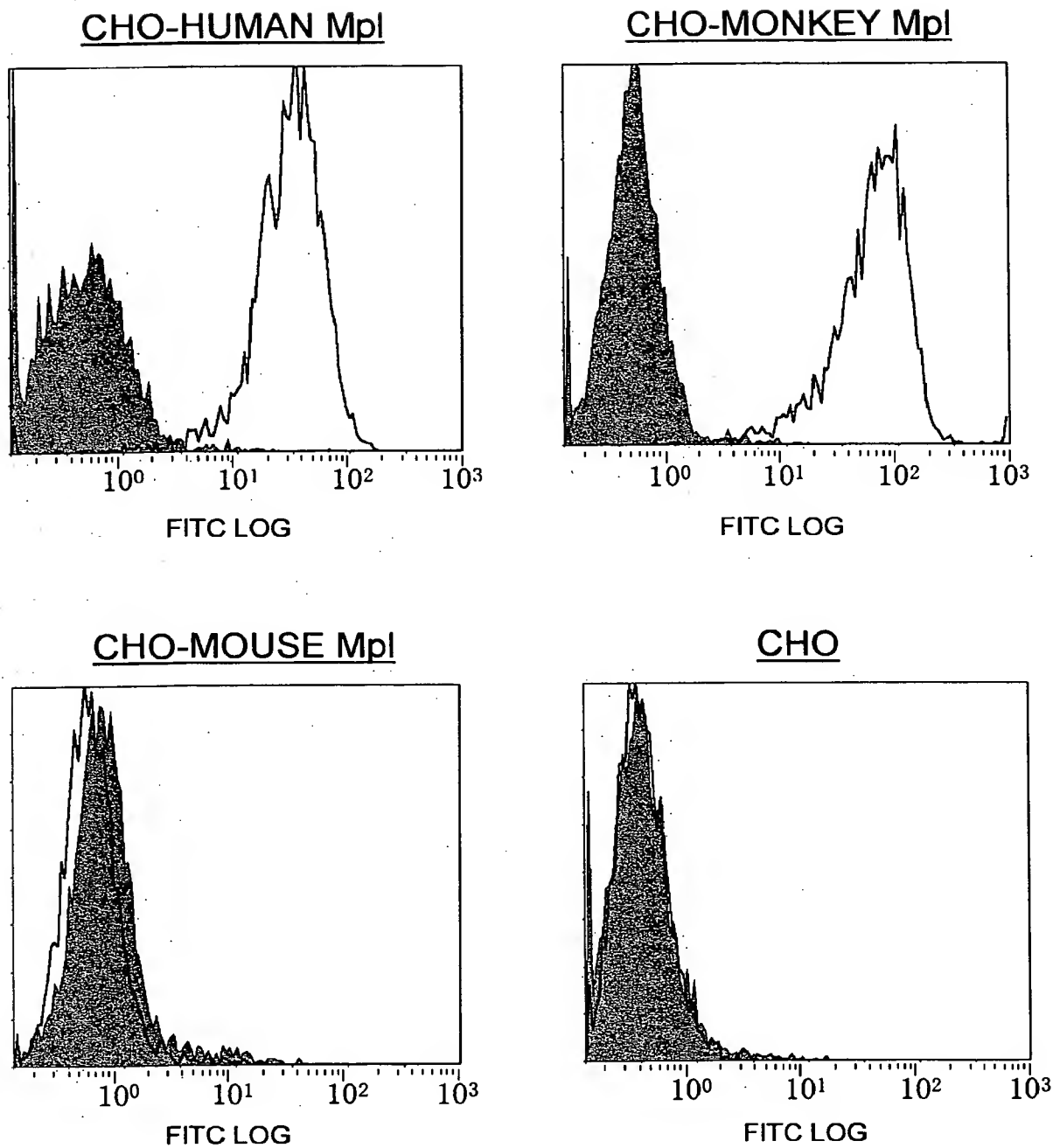


FIG. 2

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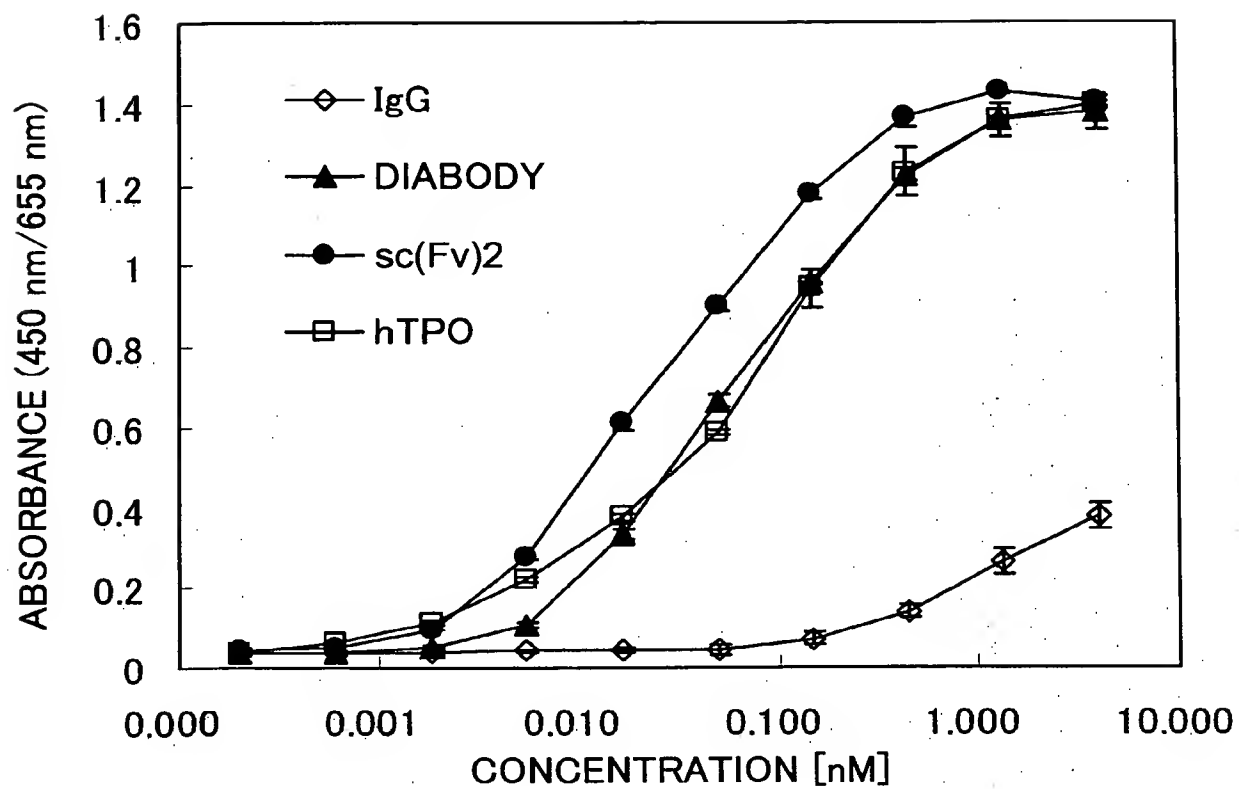


FIG. 3

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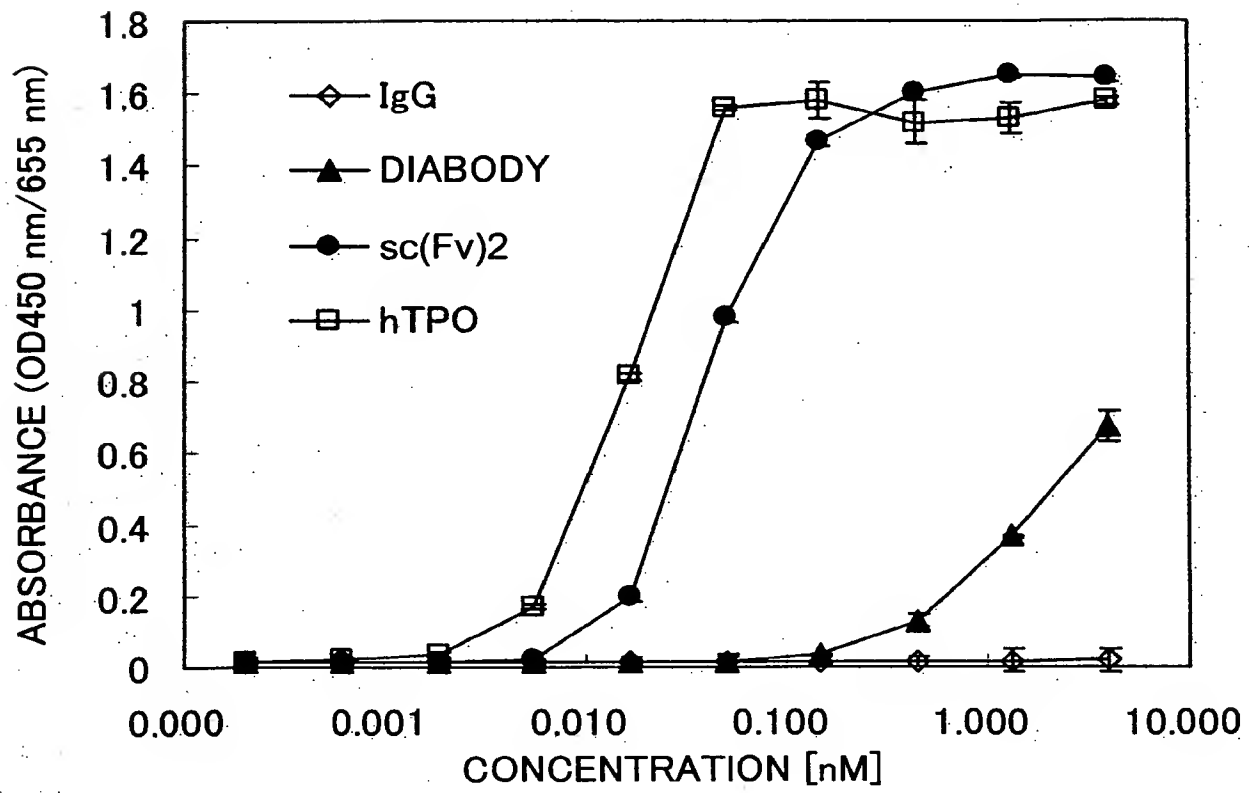


FIG. 4

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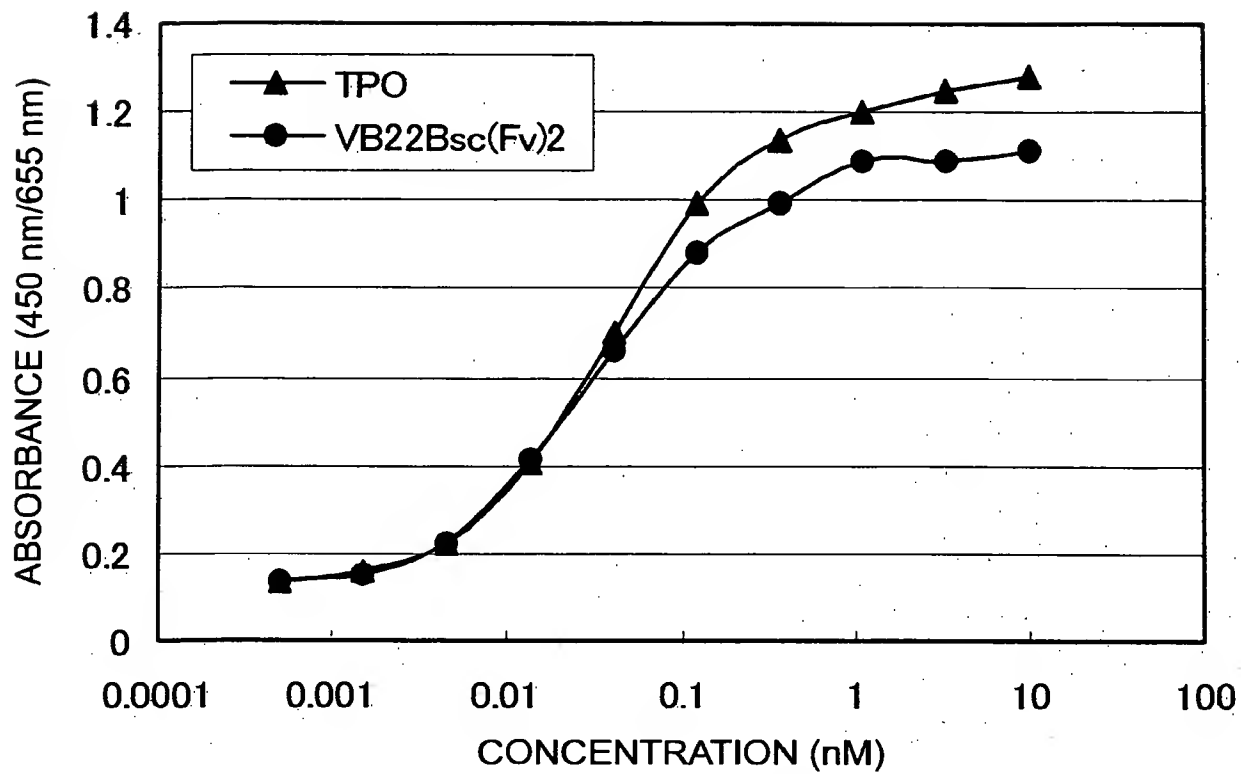


FIG. 5

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		CDR1		CDR2	
VA7	QVQLQQSGPELVKPGASVKISCKASGYAFS	SSWMN	WVKQRPKGKLEWIG	RTYPGDGDTNYNGKFKG	
VA130	QVQLQQSGPELVKPGASVKISCKASGYAFS	SSWMN	WVKQRPKGKLEWIG	RIYPGDGDTNYNGKFKG	
VA259	QVQLQQSGPELVKPGASVKISCKASGYAFS	SSWMN	WVKQRPKGKLEWIG	RIYPGDGETNYNGKFKG	
VB17B	QVQLQQSGPELVKPGASVKISCKASGYTFS	SSWMN	WVKQRPKGKLEWIG	RIYPGDGDTNYNGKFKG	
VB12B	QVQLQQSGPELVKPGASVKISCKASGYAFS	RSWMN	WVKQRPKGKLEWIG	RIYPGDGDTNYNGKFKG	
VB140	QVQLQQSGPELVKPGASVKISCRAGFYAFS	NSWMN	WVKQRPKGKLEWIG	RIYPGDGETNNGKFKG	
VB33	QVQLQQPGAELVKPGASVKLSCKASGYTFT	NYWVN	WVKQRPGRGLEWIG	RIHPSDSETHCNQKFKR	
VB45B	QVQLQQSGPELVKPGASVKISCKASGYAFS	SSWMN	WVKQRPKGKLEWIG	RIYPGDGETNNGKFKG	
VB8B	QVQLQQSGPELVKPGASVKISCKASGYAFS	TSWMN	WVKQRPKGKLEWIG	RIYPGDGEANYNGKFKG	
VB115	QVQLQQSGPELVKPGASVKISCKASGYAFS	SSWMN	WVKQRPKGKLEWIG	RIYPGDGETNYNGKFKG	
VB14B	QVQLQQSGPELVKPGASVKISCKASGYAFS	RSWMN	WVKQRPKGKLEWIG	RIYPGDGETNYNGKFKG	
VB22B	QVQLQQSGPELVKPGASVKISCKASGYAFT	NSWMN	WVKQRPKGKLEWIG	RIYPGDGETIYNGKFRV	
VB16	QVQLQQPGTELVRPGASVKLSCKASGYTFT	DYWVN	WVKQRPGRGLEWIG	RIHPYDSETHYNQKFKN	
VB157	QVQLQQPGAELVKPGASVKLSCKASGYTFT	DYWMN	WVKQRPGRGLEWIG	RIHPFDSETHCSQKFKN	
VB4B	QVQLQQSGPELVKPGASVKISCKASGYAFT	NSWMN	WVKQRPKGKLEWIG	RIYPGDGETIYNGKFRV	
VB51	QVQLQQSGPELVKPGASVKISCKASGYAFS	NSWMN	WVNQRPKGKLEWIG	RIYPGDGDTIYNGNFKG	
		CDR3			
VA7	KATLTADKSSSTAYMQLSSLTSEDSAVYFCAR	GWILADGGYSFAY	WGQGLVTVSA	(SEQ ID NO: 124)	
VA130	KATLTADKSSSTAYIQLSSLTSEDSAVYFCAR	GYAD----YSFAY	WGQGLVTVSA	(SEQ ID NO: 126)	
VA259	KATLTADKSSNTAYMQLSSLTSEDSAVYFCAR	GFGD----YSFAY	WGQGLVTVSA	(SEQ ID NO: 128)	
VB17B	KATLTADKSSSTAYMQLSSLTSEDSAVYFCAS	GYAD----YSFAY	WGQGLVTVSA	(SEQ ID NO: 130)	
VB12B	KATLTADKSSSTAYMQLSSLTSEDSAVYFCAS	GYDD----YSFAY	WGQGLVTVSA	(SEQ ID NO: 132)	
VB140	KATLTADKSSSTAYMQLSSLTSEDSAVYFCAR	GYGD----YSFAY	WGQGLVTVSA	(SEQ ID NO: 134)	
VB33	KATLTVNKSSSTAYIQLHSLTSEDSAVYYCTS	GGW-----FAY	WGQGLVTVSA	(SEQ ID NO: 136)	
VB45B	KATLTADKSSSTAYMQLSSLTSEDSAVYFCAR	GYGD----YSFAY	WGQGLVTVSA	(SEQ ID NO: 138)	
VB8B	KATLTADKSSSSAYMQLSSLTSEDSAVYFCAR	GYGD----YSFAY	WGQGLVTVSA	(SEQ ID NO: 140)	
VB115	KATLTADKSSSTVYMQLSSLTSEDSAVYFCAR	GYGD----YSFAY	WGQGLVTVSA	(SEQ ID NO: 142)	
VB14B	KATLTADKSSSTAYMQFSSLTSEDSAVYFCAR	GDGD----YSFAY	WGQGLVTVSA	(SEQ ID NO: 144)	
VB22B	KATLTADKSSSTAYMDISLSTSEDSAVYFCAR	GYDD----YSFAY	WGQGLVTVSA	(SEQ ID NO: 118)	
VB16	KATLTVDKSSSTAYIQLSSLTSEDSAVYYCAS	GGW-----FAS	WGQGLVTVSA	(SEQ ID NO: 146)	
VB157	KATLTVDKSSNTAYIQFSSLTSEDSAVYYCSS	GGW-----FAY	WGQGLVTVSA	(SEQ ID NO: 148)	
VB4B	KATLTADKSSSTAYMEISLSTSEDSAVYFCAR	GYDD----YSFAY	WGQGLVTVSA	(SEQ ID NO: 150)	
VB51	KATLTADKSSSIAYMQLSSLTSEDSAVYFCTS	GYDD----YSFAY	WGQGLVTVSA	(SEQ ID NO: 152)	

FIG. 6

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		CDR1		CDR2
VA7	DIVMTQAAPSIPTVTPGESVSISC	RSSKSLHNSNGNTYLY	WFLQRPQGSPQLLIY	RMSNLAS
VA130	DIVMTQAAPSVPTVTPGESVSISC	RSSKSLHNSNGNTYLY	WFLQRPQGSPQLLIY	RMSNLAS
VA259	DIVMTQAAPSVPTVTPGESVSISC	RSSKSLHNSNGNTYLY	WFLQRPQGSPQLLIY	RMSNLAS
VB17B	DIVMTQAAPSVPTVTPGESVSISC	RSSKSLHNSNGNTYLY	WFLQRPQGSPQLLIY	RMSNLAS
VB12B	DIVMTQAAPSVPTVTPGESVSISC	RSSKSLHNSNGNTYLY	WFLQRPQGSPQLLIY	RMSNLAS
VB140	DIVMTQAAPSVPTVTPGESVSISC	RSSKSLHNSNGNTYLY	WFLQRPQGSPQLLIY	RMSNLAS
VB33	DIVMTQAAPSVPTVTPGESVSISC	RSSKSLHNSNGNTYLY	WFLQRPQGSPQLLIY	RMSNLAS
VB45B	DIVMTQAAPSVPTVTPGESVSISC	RSSKSLHNSNGNTYLY	WFLQRPQGSPQLLIY	RMSNLAS
VB8B	DIVMTQAAPSVPTVTPGESVSISC	RSSKSLHNSNGNTYLY	WFLQRPQGSPQLLIY	RMSNLAS
VB115	DIVMTQAAPSVPTVTPGESVSISC	RSSKSLHNSNGNTYLY	WFLQRPQGSPQLLIY	RMSNLAS
VB14B	DIVMTQAAPSVPTVTPGESVSISC	RSSKSLHNSNGNTYLY	WFLQRPQGSPQLLIY	RMSNLAS
VB22B	DIVMTQAAPSIPTVTPGESVSISC	RSSKSLHNSNGNTYLY	WFLQRPQGSPQLLIY	RMSNLAS
VB16	DIVMTQAAPSVPTVTPGESVSISC	RSSKSLHNSNGNTYLY	WFLQRPQGSPQLLIY	RMSNLAS
VB157	DIVMTQAAPSVPTVTPGESVSISC	RSSKSLHNSNGNTYLY	WFLQRPQGSPQLLIY	RMSNLAS
VB4B	DIVMTQAAPSVPTVTPGESVSISC	RSSKSLHNSNGNTYLY	WFLQRPQGSPQLLIY	RMSNLAS
VB51	DIVMTQAAPSLPTVTPGESVSISC	RSSKSLHNSNGNTYLY	WFLQRPQGSPQLLIY	RMSNLAS
		CDR3		
VA7	GVPDRFSGSGSGTAFTLRISRVEAEDVGIIYYC	MQHLEYPFT	FGTGTKLEIK	(SEQ ID NO: 125)
VA130	GVPDRFSGSGSGTAFTLRISRVEAEDVGVIYYC	MQHLEYPYT	FGSGTKLEIK	(SEQ ID NO: 127)
VA259	GAPDRFSGSGSGTAFTLRISRVEDTDVGVIYYC	MQHLEYPYT	FGSGTKLEIK	(SEQ ID NO: 129)
VB17B	GVPDRFSGSGSGTAFTLRISRVEAEDVGVIYYC	MQHLEYPYT	FGSGTKLEIK	(SEQ ID NO: 131)
VB12B	GVPDRFSGSGSGTAFTLRISRVEAEDVGVIYYC	MQHLEYPYT	FGSGTKLEIK	(SEQ ID NO: 133)
VB140	GVPDRFSGSGSGAFTLRISRVEAEDVGVIYYC	MQHLEYPYT	FGSGTKLEIK	(SEQ ID NO: 135)
VB33	GVPDRFSGSGSGTAFTLRISRVEAEDVGVIYYC	MQHLEYPYT	FGSGTKLEIK	(SEQ ID NO: 137)
VB45B	GVPDRFSGSGSGAFTLRISRVEAEDVGVIYYC	MQHLEYPYT	FGSGTKLEIK	(SEQ ID NO: 139)
VB8B	GVPDRFSGSGSGTAFTLRISRVEAEDVGVIYYC	MQHVEYPYT	FGSGTKLEIK	(SEQ ID NO: 141)
VB115	GVPDRFSGSGSGTAFTLRISRVEAEDVGVIYYC	MQHLEYPYT	FGSGTKLEIK	(SEQ ID NO: 143)
VB14B	GVPDRFSGSGSGTAFTLRISRVEAEDVGVIYYC	MQHLEYPYT	FGSGTKLEIK	(SEQ ID NO: 145)
VB22B	GVPDRFSGSGSGTAFTLRISRVEAEDVGVIYYC	MQHIEYPFT	FGSGTKLEIK	(SEQ ID NO: 120)
VB16	GVPDRFSGSGSGTAFTLTISSVEAEDVGVIYYC	MQHLEYPYT	FGSGTKLEIK	(SEQ ID NO: 147)
VB157	GVPDRFSGSGSGTAFTLKISRVEAEDVGVIYYC	MQHLEYPYT	FGSGTKLEIK	(SEQ ID NO: 149)
VB4B	GVPDRFSGSGSGTAFTLRISRVEAEDVGVIYYC	MQHIEYPFT	FGSGTKLEIK	(SEQ ID NO: 151)
VB51	GVPDRFSGSGSGTAFTLRISRVEAEDVGVIYYC	MQHLEYPYT	FGSGTKLEIK	(SEQ ID NO: 153)

FIG. 7

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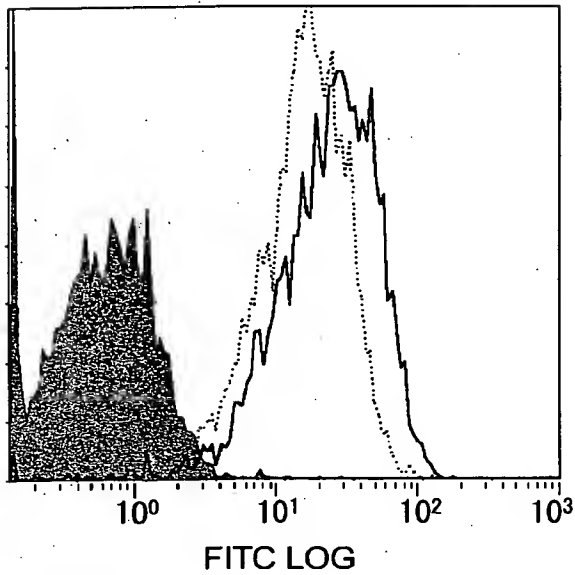
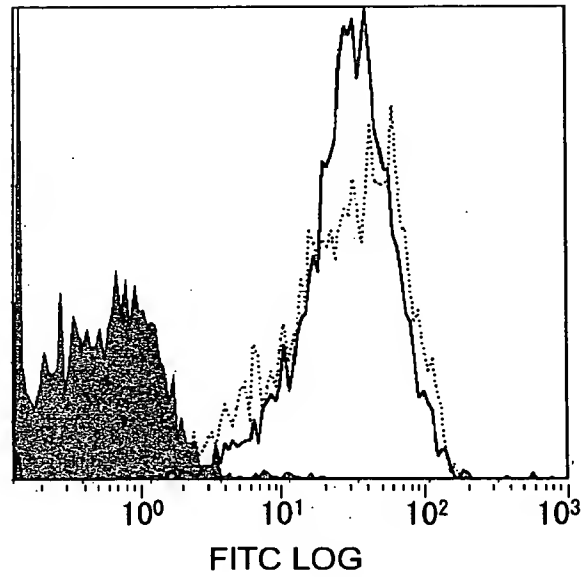
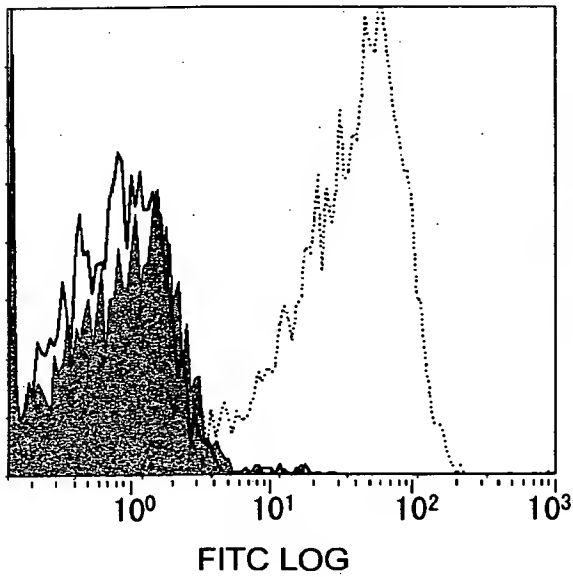
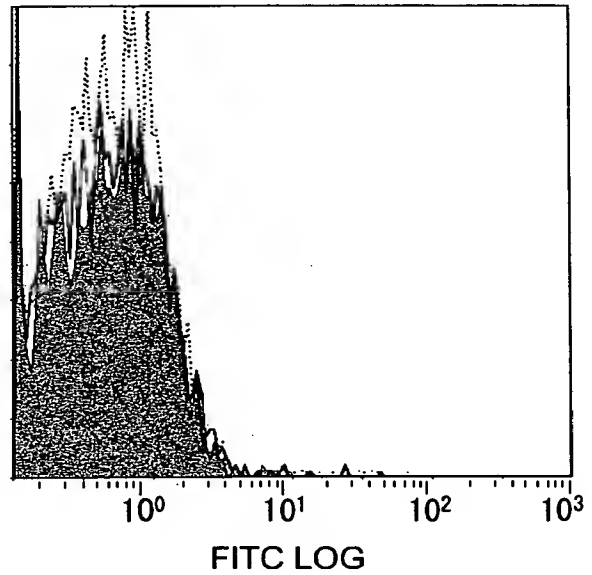
CHO-HUMAN MplCHO-MONKEY MplCHO-MOUSE MplCHO

FIG. 8

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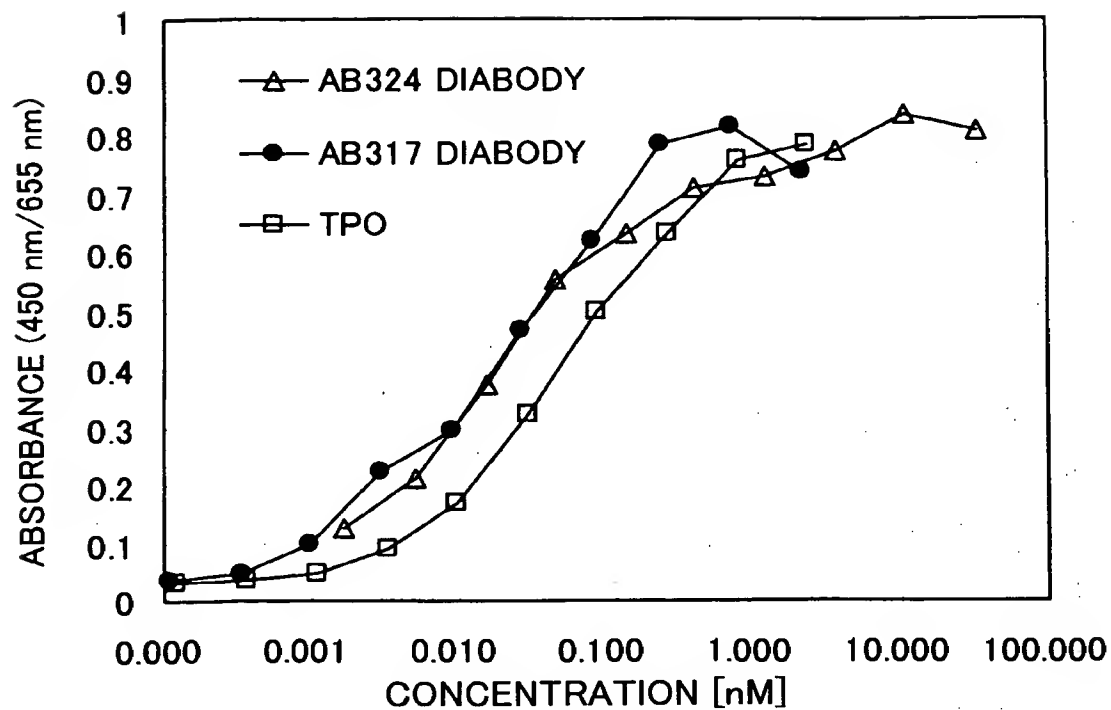


FIG. 9

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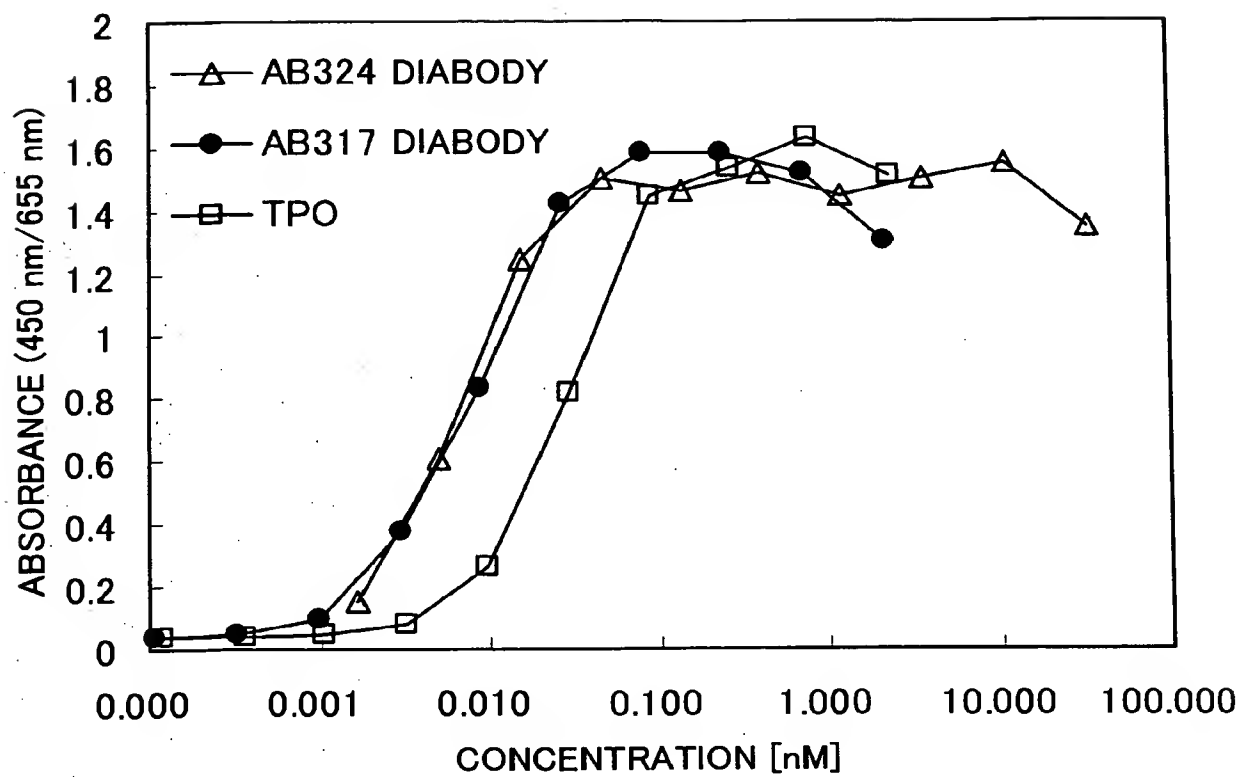


FIG. 10

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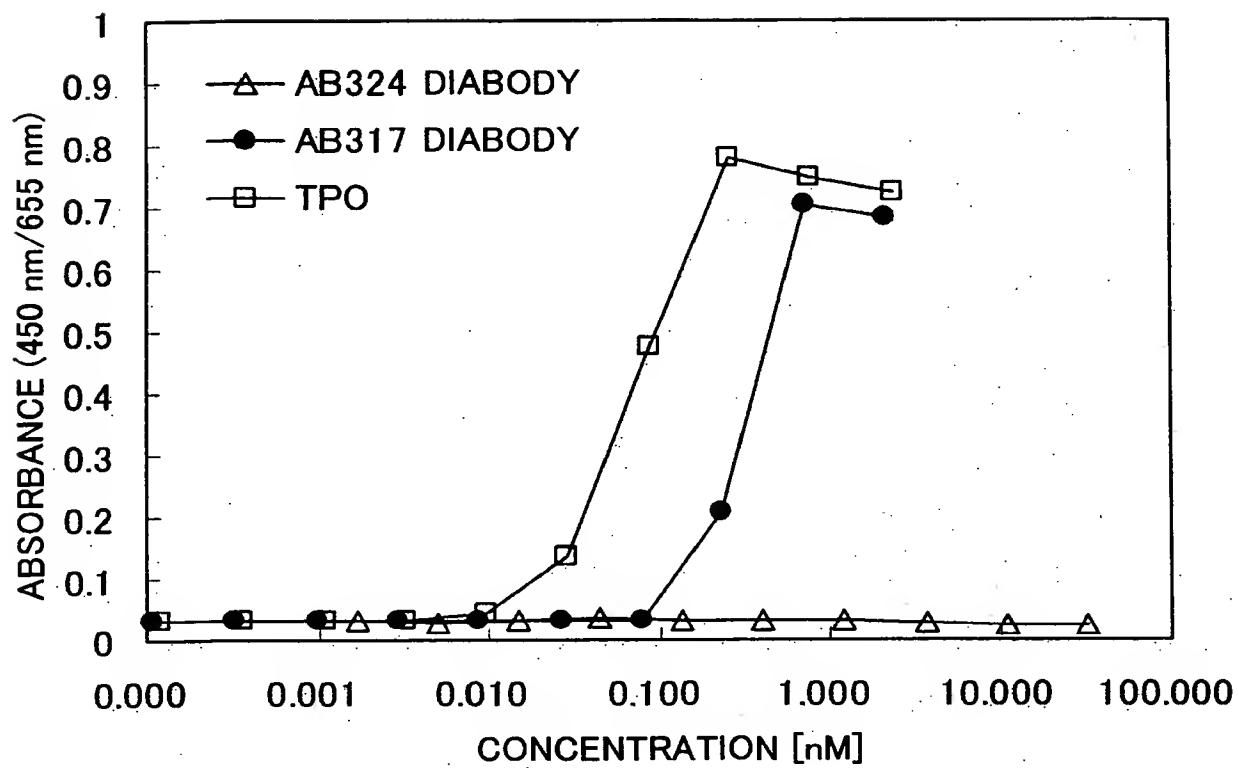


FIG. 11

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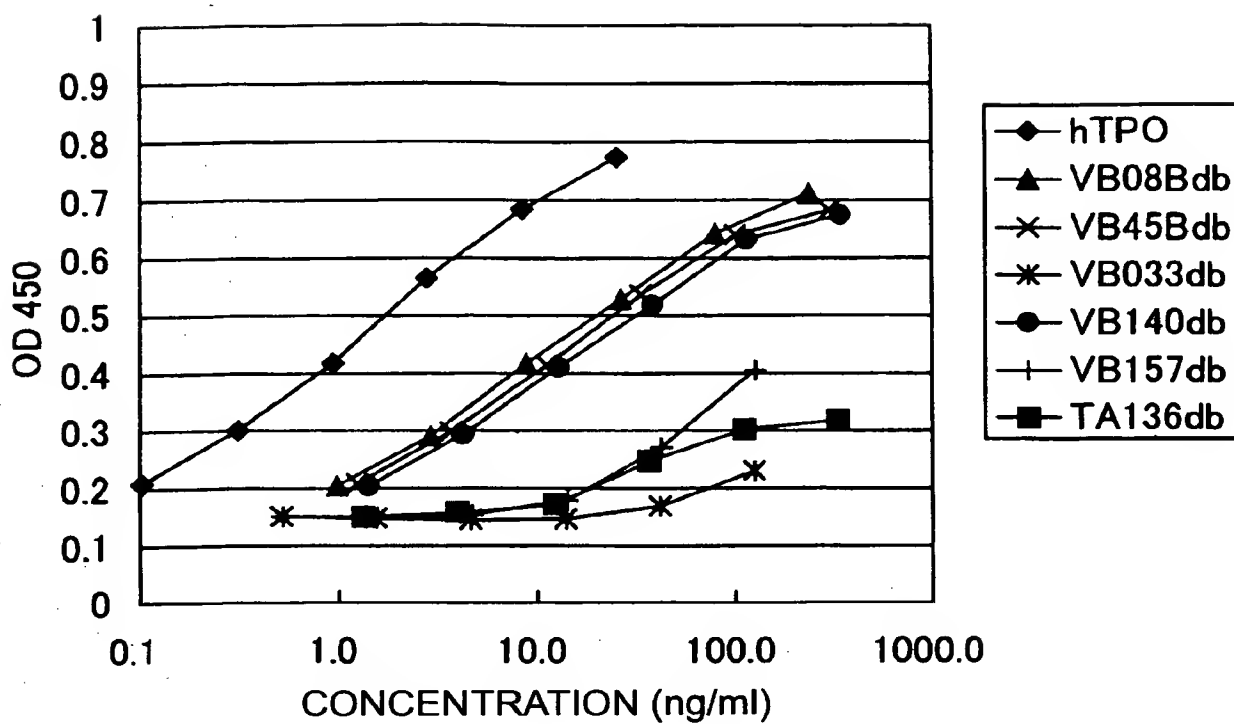


FIG. 12

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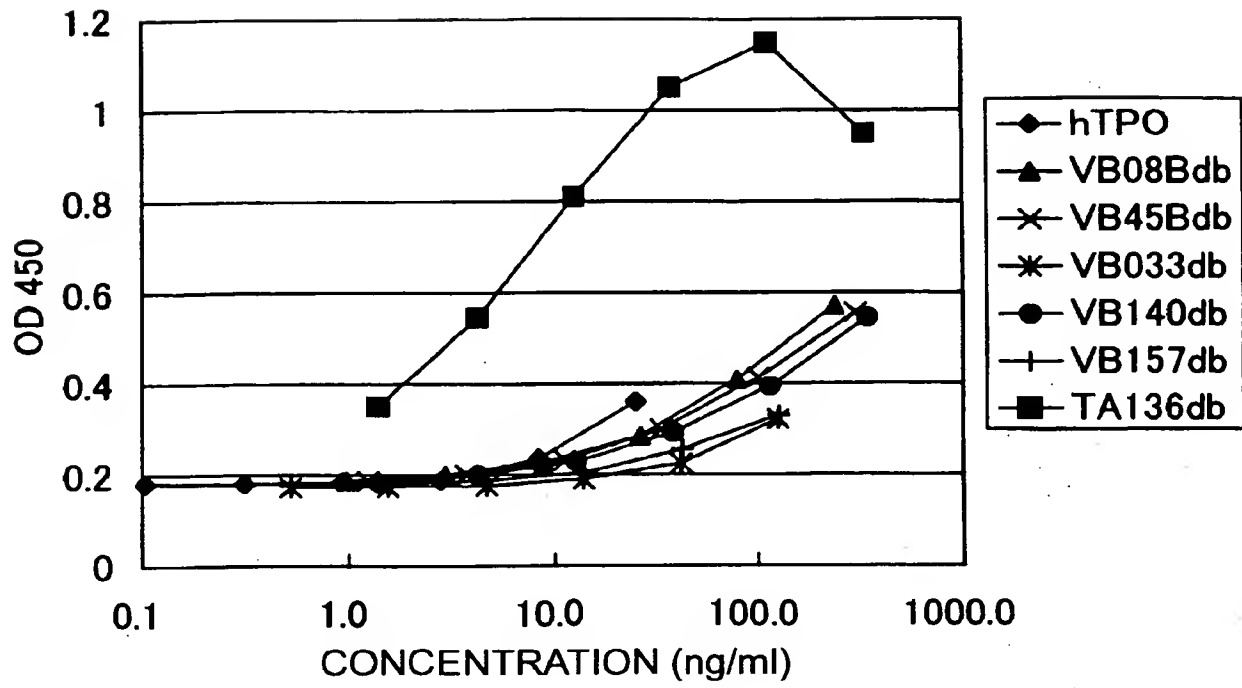


FIG. 13

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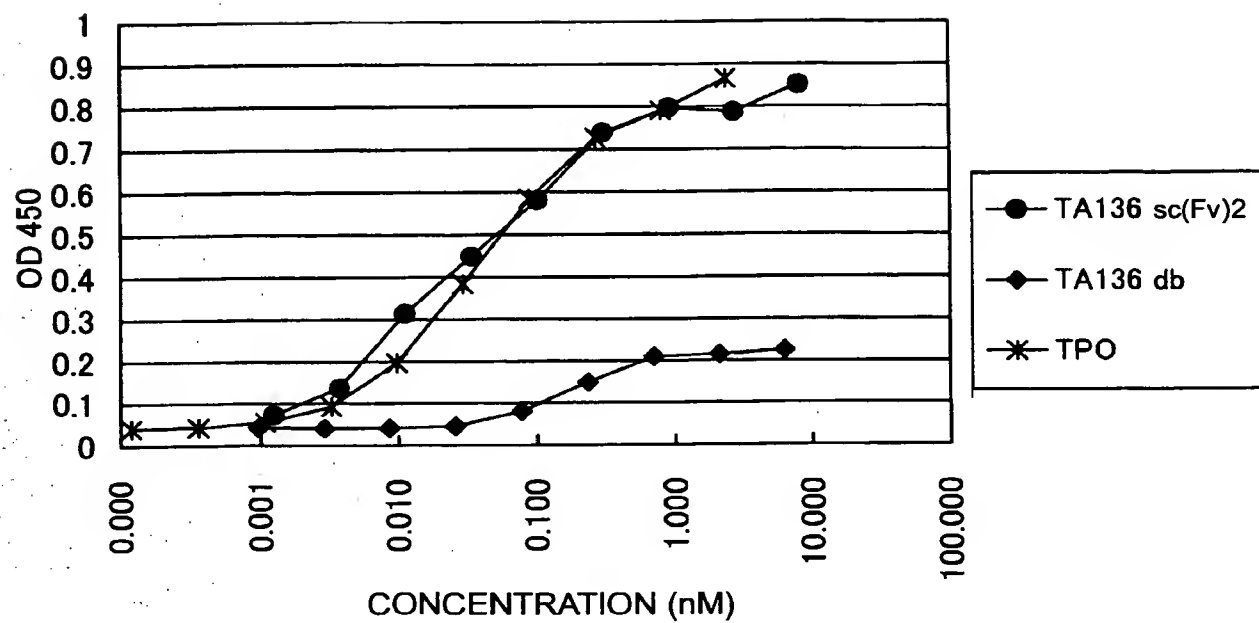


FIG. 14

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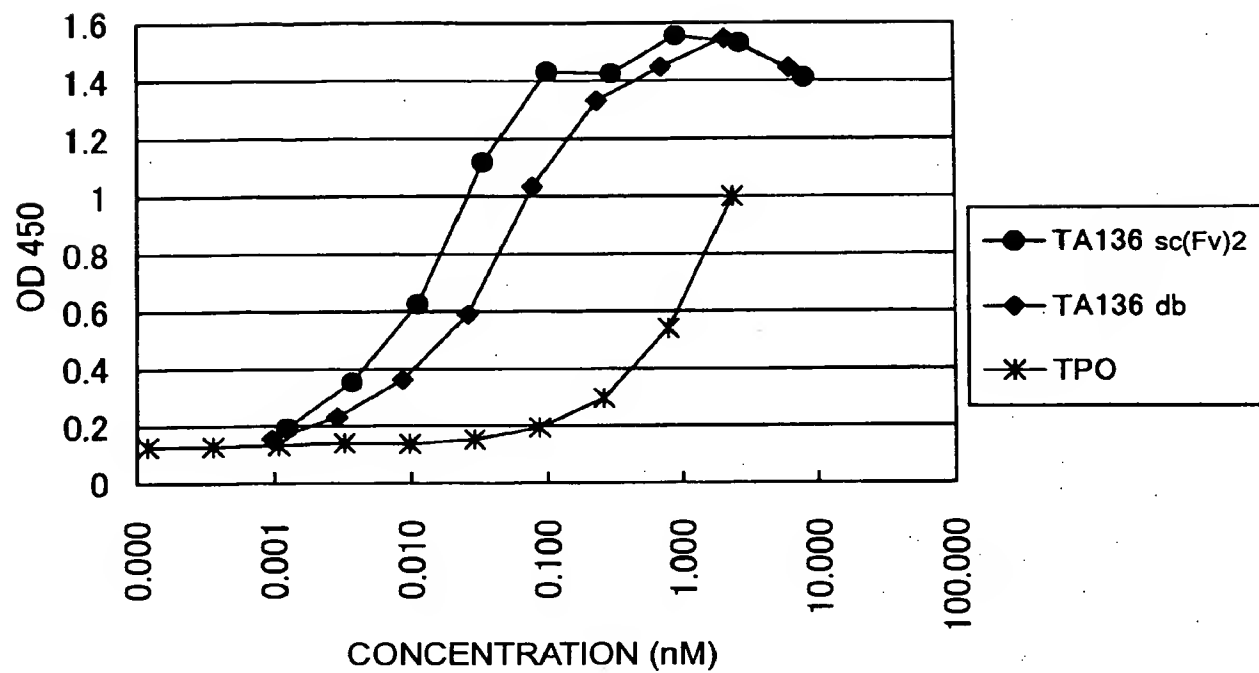


FIG. 15

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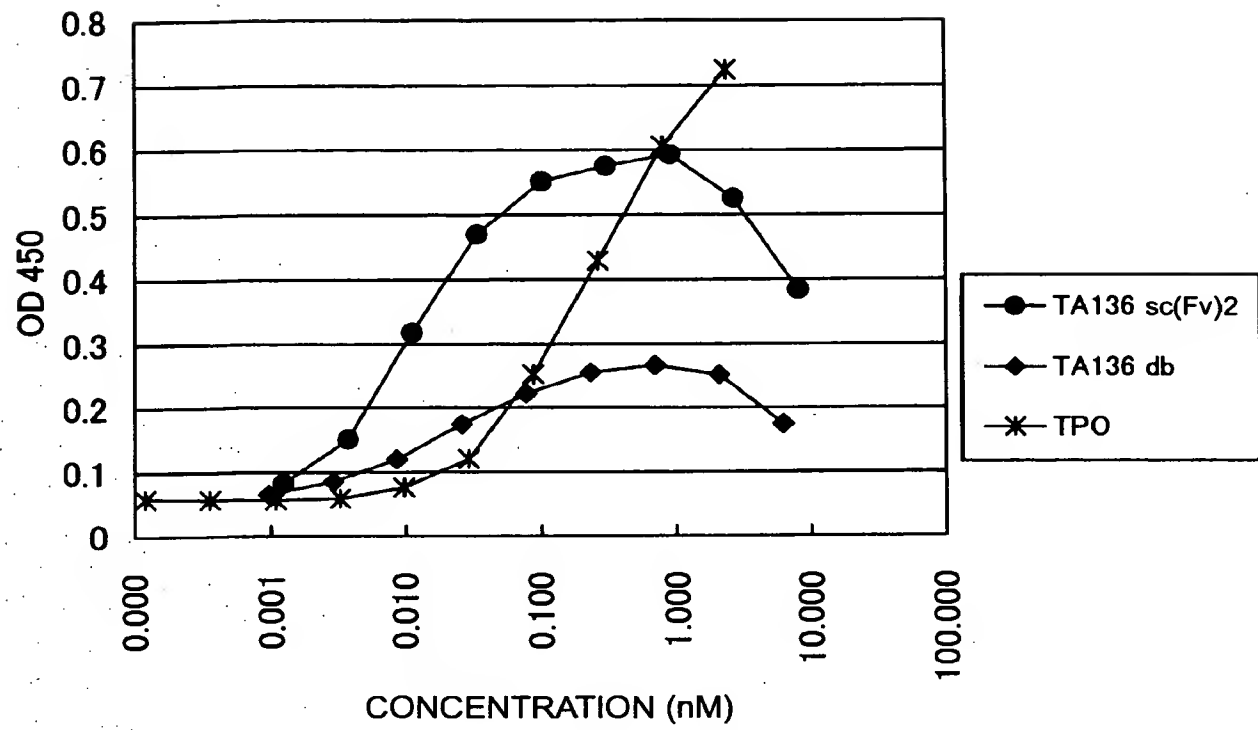


FIG. 16

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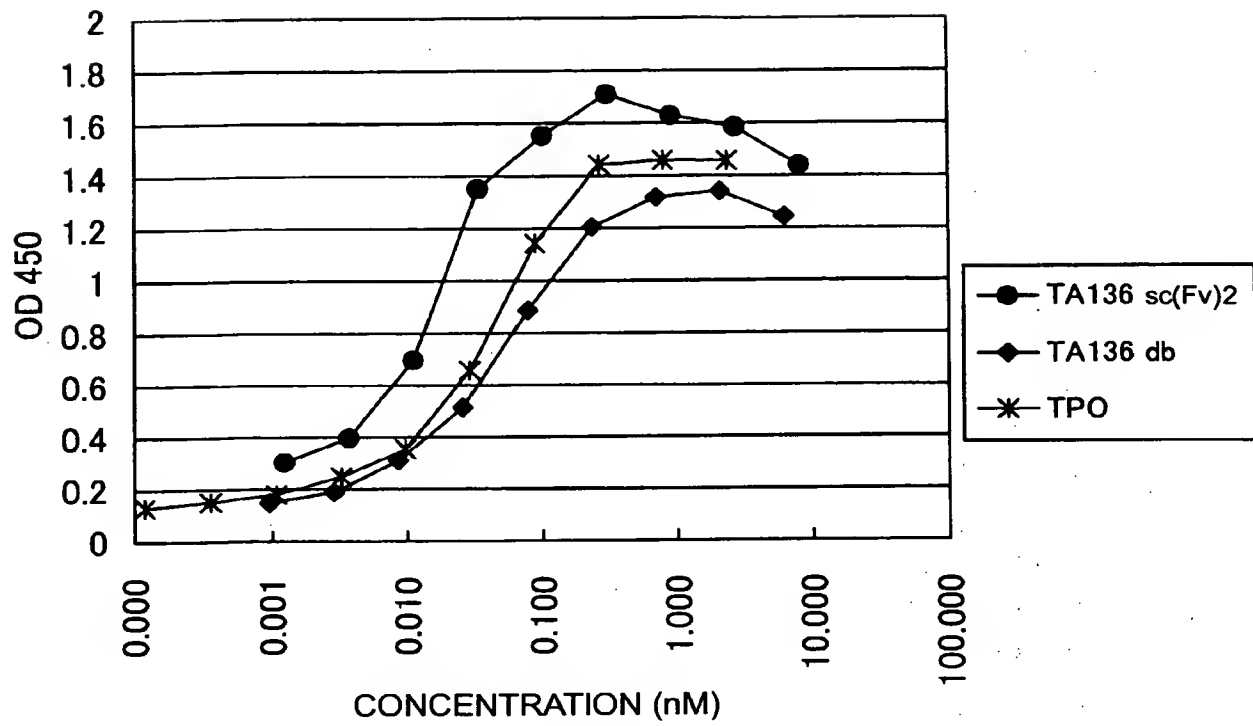


FIG. 17

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HUMANIZED HEAVY CHAIN									
				FR1	CDR1	FR2	CDR2		
hVB22B u2-wz4	QVQLVQSGPEVKKPGASVKVSVCKASGYTFT	NSWMN	WVRQRPKGLEWIG	RIYPGDGETIYNGKFRV					
hVB22B q-wz5	QVQLVQSGPEVKKPGASVKVSVCKASGYTFT	NSWMN	WVRQRPKGLEWIG	RIYPGDGETIYNGKFRV					
hVB22B p-z	QVQLVQSGPEVKKPGASVKVSVCKASGYTFT	NSWMN	WVRQRPKGLEWVG	RIYPGDGETIYNGKFRV					
hVB22B g-e	QVQLVQSGPEVKKPGASVKVSVCKASGYTFT	NSWMN	WVRQRPKGLEWVG	RIYPGDGETIYNGKFRV					
hVB22B e	QVQLVQSGPEVKKPGASVKVSVCKASGYTFT	NSWMN	WVRQRPKGLEWIG	RIYPGDGETIYNGKFRV					
				FR1	CDR1	FR2	CDR2		
hVB22B u2-wz4	RVTITADESTSTAYMQLSSLRSED	GYDDYSFAY	WGQGT	TVTVSS				(SEQ ID NO: 289)	
hVB22B q-wz5	RVTITADESTSTAYMELSSLRSED	GYDDYSFAY	WGQGT	TVTVSS				(SEQ ID NO: 295)	
hVB22B p-z	RVTITADESTSTAYMELSSLRSED	GYDDYSFAY	WGQGT	TVTVSS				(SEQ ID NO: 229)	
hVB22B g-e	RVTITADESTSTAYMELSSLRSED	GYDDYSFAY	WGQGT	TVTVSS				(SEQ ID NO: 256)	
hVB22B e	RVTITADESTSTAYMELSSLRSED	GYDDYSFAY	WGQGT	TVTVSS				(SEQ ID NO: 262)	
				FR3	CDR3	FR4			

FIG. 18-1

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HUMANIZED LIGHT CHAIN				
	FR1	CDR1	FR2	CDR2
hVB22B u2-wz4	DIVMTQSPLSLPVTGPGEASISC	RSSKSLLHSNGNTYLY	WFLQKPGQSPQLLIY	RMSNLAS
hVB22B q-wz5	DIVMTQSPLSLPVTGPGEASISC	RSSKSLLHSNGNTYLY	WFQKPGQAPRLLIY	RMSNLAS
hVB22B p-z	DIVMTQSALSLPVTGPGEASISC	RSSKSLLHSNGNTYLY	WFQKPGQSPQLLIY	RMSNLAS
hVB22B g-e	DIVMTQSALSLPVTGPGEASISC	RSSKSLLHSNGNTYLY	WYLQKPGQSPQLLIY	RMSNLAS
hVB22B e	DIVMTQSALSLPVTGPGEASISC	RSSKSLLHSNGNTYLY	WYLQKPGQSPQLLIY	RMSNLAS
	FR3	CDR3	FR4	
hVB22B u2-wz4	GVPDRFSGSGGTFTLKISRVEAEDVGYVC	MQHIEYPFT	FGQGTKLEIK (SEQ ID NO: 291)	
hVB22B q-wz5	GVPDRFSGSGGTFTLKISRVEAEDVGYVC	MQHIEYPFT	FGQGTKLEIK (SEQ ID NO: 297)	
hVB22B p-z	GVPDRFSGSGGTFTLKISRVEAEDVGYVC	MQHIEYPFT	FGQGTKLEIK (SEQ ID NO: 238)	
hVB22B g-e	GVPDRFSGSGGTFTLKISRVEAEDVGYVC	MQHIEYPFT	FGQGTKLEIK (SEQ ID NO: 258)	
hVB22B e	GVPDRFSGSGGTFTLKISRVEAEDVGYVC	MQHIEYPFT	FGQGTKLEIK (SEQ ID NO: 258)	

FIG. 18-2

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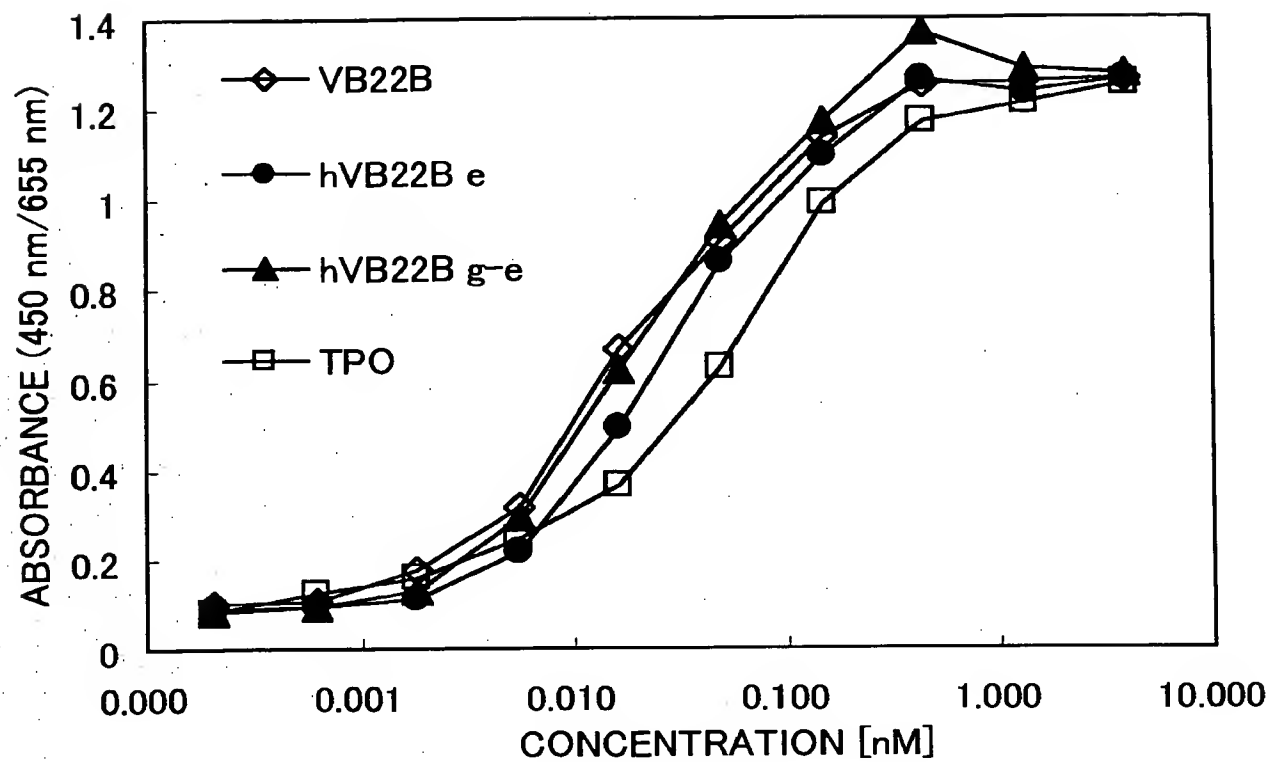


FIG. 19

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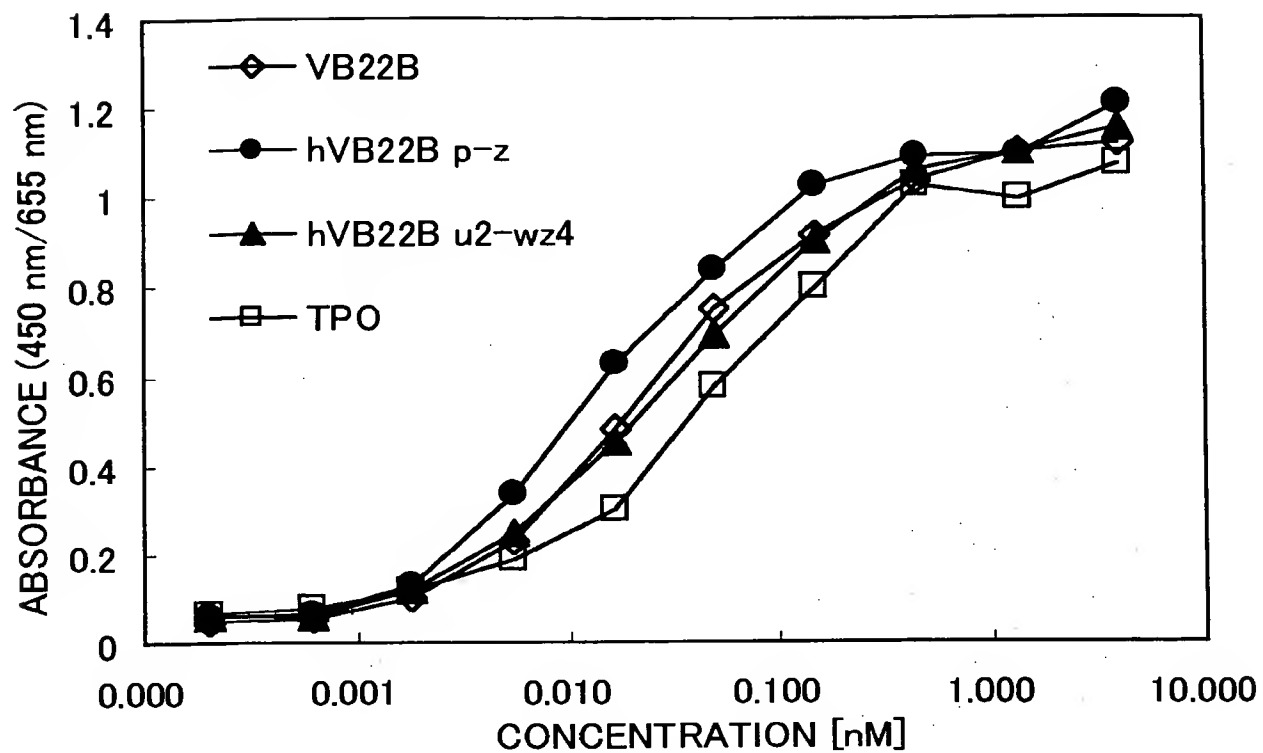


FIG. 20

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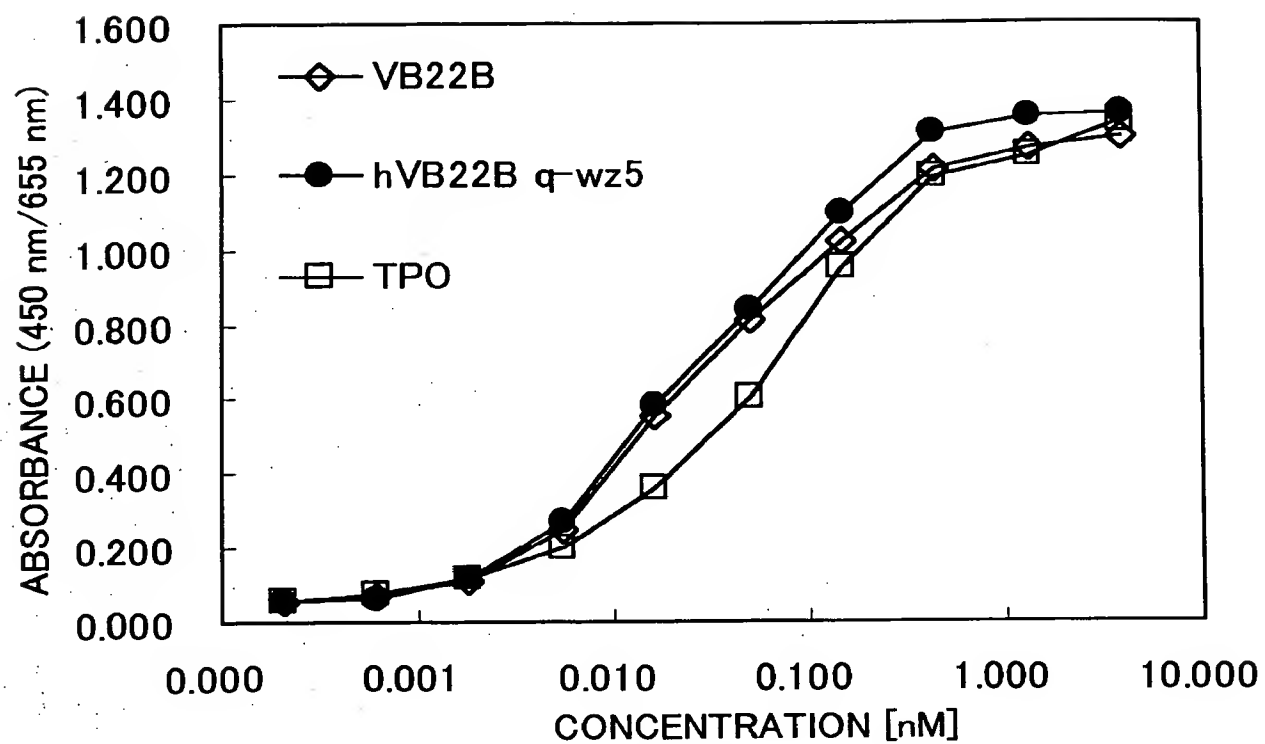


FIG. 21